

**Commonwealth of Kentucky**  
**Division for Air Quality**  
***PERMIT STATEMENT OF BASIS***

Title V draft permit No. V-04-003

TEXWOOD INDUSTRIES, INC.

DUNCANVILLE, TEXAS

12/24/03

JIM MORSE, REVIEWER

Plant I.D. #

Application Log # 50726 (F931)

**SOURCE DESCRIPTION:** Texwood manufactures kitchen cabinets. The woodworking department uses various borers, cutters, shapers, and sanders to craft raw lumber into cabinet pieces. The cabinet pieces are subsequently assembled using a waterbased glue and sent to the finish lines.

The spray booths and drying ovens are used to apply and cure finishes on the assembled cabinets. The booths each have High Volume Low Pressure (HVLP) type guns. Transfer efficiency ranges from 8% to 34%. The greater part of emissions are in the form of volatile organic compounds (VOCs). Four spray booths are controlled by a thermal oxidizer, the rest have no control on VOC emissions. Compliance with National Emission Standards for Hazardous Air Pollutants (NESHAP) guidelines as detailed in 40 CFR 63, Subpart JJ is achieved by using a combination of compliant coatings and averaging.

**COMMENTS:**

401 KAR 59:010, New process operations, applies to woodworking and spraying of finish materials. Particulate generated from woodworking is collected in a baghouse and then disposed of by landfilling. Baghouse efficiency is near 100 percent due to the very small (<2%) amount of particulate smaller than 10 microns (Everything larger than 10 microns is trapped).

Each spray booth uses a 95% efficient panel filter to control particulate emissions.

40 CFR 63, Subpart JJ, National Emission Standards for Wood Furniture Manufacturing Operations, applies to the cabinet finishing and glueing operations.

401 KAR 59:015, New indirect heat exchangers, applies to the curing ovens for Lines 1 & 2.

401 KAR 50:012, General application, applies to the source. The Division has determined that oxidation of VOC emissions is a reasonable, practical and available method of control. Texwood is an emitter of formaldehyde. It is an indispensable component of some of their finishes. The formaldehyde emissions do not exceed acceptable levels when the oxidizer is operating.

## Permit Statement of Basis (continued)

The limit on VOC emissions is voluntary.

Emission factors come from the source and AP-42. This includes capture efficiencies for the spray booths, which are based on testing performed for the source by Akzo Nobel (the finish supplier). The capture efficiency was verified by temporary total enclosure using Method 204 at the time of destruction efficiency testing.

**EMISSION AND OPERATING CAPS DESCRIPTION:** Although the source is major with regard to HAPs, they have voluntarily accepted limits on the amount of VOCs emitted to avoid PSD review. The limit on VOC emissions will be 240 tons per year.

**OPERATIONAL FLEXIBILITY:** Operational flexibility is built into the NESHAP, which allows sources the choice of using all compliant coatings, averaging, or a combination in order to achieve compliance. Flexibility within the limit for VOCs allows the emissions to come from any part of the plant with no individual limits at spray booths.

### **CREDIBLE EVIDENCE:**

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has not incorporated these provisions in its air quality regulations.